

# GREENTIMES JR - TEACHER GUIDE

OCTOBER 2004

PLANTS: SUNFLOWER

DEAR TEACHER,

*The intended role of this TEACHER GUIDE is to assist teachers using the GREENTIMES JR newsletter in creatively using it and expanding, in a cross-disciplinary way, upon the lessons and concepts included in this issue. We have changed the format of the guide in response to the feedback we received from teachers last year. Please feel free to contact us at any time with suggestions and questions. Thank you for using GREENTIMES JR! Happy learning!*

## HANDS-ON SCIENCE

Bring in real sunflowers (most floral shops sell them in the fall months). Using a magnifying glass, your students can study the parts of composite flowers: disk flowers, ray flowers, stem and leaves, reproductive parts, etc.

In the spring, plant sunflower seeds in paper cups. Each student can plant a few seeds to take home and transfer to the ground in a yard or in a pot near a window. Sunflowers grow all summer long, so this could be an exciting project if you teach summer school.

## ART ACTIVITIES

Sunflowers are a popular design used in art. The National Sunflower Associates has a free coloring book that you can download and use as a basis for drawing sunflowers.

<http://www.sunflowerlsa.com/all-about/default.asp?contentID=61>

Vincent Van Gogh painted several sunflower series. This Van Gogh site has information about several of his sunflower series as well as photos of the paintings.

<http://www.vangoghgallery.com/misc/sunflowers.htm>

Sunflowers are too large to press, but sunflower *petals* can easily be pressed between the pages of a large book (such as a dictionary). These pressed petals can then be used in art projects. One suggestion is to laminate the pressed flowers and create a frame from colored construction paper. Punch a hole in a corner of the frame and thread through a piece of string. This is an easy and inexpensive way to create a pretty window ornament that students can take home.

## **BOOK SUGGESTIONS**

“Camille and the Sunflowers: A Story About Vincent Van Gogh” By Lawrence Anholt

“A Field of Sunflowers” By Neil Johnson

## **WRITING EXERCISE**

Ask your students to write a summary of the life cycle of a sunflower. Have them include as many of the vocabulary words in the exercises on “Poco’s Fun Page” as they can.

## **MATH**

Create story problems with your students. Addition, subtraction, multiplication, division and fractions can all be studied using fun examples such as sunflowers! Depending upon the grade you teach, the problems can be more or less elaborate and complex.

Here are a few simple examples:

You have a sunflower that has produced 1500 seeds. If  $\frac{1}{3}$  of those seeds grow a new sunflower plant next spring, how many sunflower plants will you have?

You have 35 sunflowers growing in your garden. Your neighbor has 24 sunflowers in her garden. If you add your sunflowers together, how many do you have together?

A sunflower farmer has 40,357 sunflowers. He lets you pick 32 to give to your friends and family. How many does he have left?

## **BACKGROUND INFORMATION**

[www.sunflowernsa.com](http://www.sunflowernsa.com) – The National Sunflower Association has large amount of accurate information that is mostly relating to commercial aspects of growing Sunflowers.

<http://jstait.addr.com/sunflowers/howto.htm> – this personal site tells all about growing sunflowers.

<http://ohioline.osu.edu/hyg-fact/1000/1228.html> – this site is a fact sheet published by an Ohio State University professor.

[http://www.backyardnature.net/fl\\_comps.htm](http://www.backyardnature.net/fl_comps.htm) – Backyard Nature has a great explanation about composite flowers (including diagrams of reproductive parts of the flower).